CalebWalker

Electrical & Computer Engineering Student

walkecal@oregonstate.edu 5413145301

RELEVANT EXPERIENCE

TEKSYSTEMS| DATA CENTER OPERATIONS
March 2021 – September 2021 | Oregon

→ Completed temporary contract work at an Amazon Web Services facility. Work included application of technical skills to solve problems. Under restrictive Non-Disclosure agreement.

Oregon State University| UNDERGRADUATE LEARNING SYSTEM
March 2022 – June 2022 | Oregon

→ Worked with students in Oregon State University's ENGR 103 course. The focus of the course was an indroductory programming course, taught in C++.

→ Ran weekly studios where students could apply what they had learned in lecture to create actual code projects.

→ Individually tutored students when they had questions regarding course content.

PROJECTS

LINUX SHELL INTERPRETER | C
2021

→ Created a shell interpreter capable of basic POSIX style command line utility.

→ Implemented the ability to change the working directory as well as basic input/output redirection to files.

→ Other command line utilities could be executed as one would expect through the use of the 'fork' system call (e.g. vim, cat, echo, ngspice, etc.).

MORSE CODE ENCODER | AVR ASSEMBLY
2020

→ Hardware morse code generator using an Atmega32 microcontroller with pushbuttons, LEDs, and an LCD screen for user interface.

→ Precise timings and correct formatting for morse code transmissions in compliance with communication standards.

→ Text based user interface allows for a user to write out a message of up to 16 characters in length before the transmission begins.

VGA SIGNAL GENERATOR | SYSTEM VERILOG
2020

→ VGA signal generator developed in Quartus Prime using the System Verilog hardware description language.

→ Capable of displaying 64 different user select-able colors to the screen.

→ Physically tested by programming logic elements onto a Terasic DE10-Lite FPGA (field programmable gate array), and connecting output to real consumer grade VGA display.

BRAINF*** ESOTERIC PROGRAMMING LANGUAGE INTERPRETER
2021

→ Interpreter capable of executing any Brainf*** code (not a useful programming language, more of a proof of concept).

→ Basic memory abstraction used to increase interpreter security and stability.

SKILLS

PROGRAMMING

Proficient:
C++ • Assembly • Shell

Experienced:
Python • C

Familiar:
Rust • System Verilog • BASIC

TOOLS/PLATFORMS

Git • Spice • Quartus Prime
Fritzing

EDUCATION

OREGON STATE UNIVER-SITY
BACHELOR'S IN ELECTRICAL & COMPUTER ENGINEERING
Sep 2018 - Present | Corvallis, OR
School of Engineering
Cum. GPA: 3.49 / 4.0

BLUE MOUNTAIN COMMU-NITY COLLEGE
ASSOCIATES OF ARTS OREGON TRANSER DEGREE
May 2018 | Pendleton, Oregon
Cum. GPA: 3.7 / 4.0

AWARDS

2018   Questbridge Scholar
2018   Class Valedictorian
— Stanfield Secondary School